

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE



Applicant: BARSTOW, David et al.

Appl'n No.: 09/548,719

Filing Date: April 13, 2000

For: METHOD AND APPARATUS FOR
BROADCASTING LIVE EVENTS TO
ANOTHER LOCATION AND PRODUCING
A COMPUTER SIMULATION OF THE
EVENTS AT THAT LOCATION

Group Art Unit: 2178

Examiner: PAULA, C

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MS Appeal Brief - Patents
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

APPEAL BRIEF

Sir:

Applicants submit this appeal brief pursuant to the notice of appeal filed February 14, 2003, the due date for this submission having been extended by two months to June 16, 2003 by payment of the requisite extension fee under 37 C.F.R. § 1.136(a).

REAL PARTY IN INTEREST

DDB TECHNOLOGIES, L.L.C. is the real party in interest for all issues related to this application by virtue of an assignment recorded with the Office at reel 8967, frame 0380.

RELATED APPEALS AND INTERFERENCES

There are no other appeals and/or interferences related to this application.

STATUS OF CLAIMS

This application contains presently pending claims 1-16, all of which stand finally rejected. All rejections are appealed.

STATUS OF AMENDMENTS

No amendment was filed subsequent to final rejection in this application.

SUMMARY OF THE INVENTION

Embodiments of the present invention include a method for transmitting information useful in a computer simulation of a live event. At least one sub-event of the event is represented by an action type representative of actions involving physical exertion and skill. A database file corresponding to the event is created and updated using the action type representing the sub-event, providing an updated representation. Information from the updated representation is transmitted.

FIG. 1 illustrates an embodiment in which an observer 1 with a computer 2 observes a live event (not shown) which can be described as an ordered sequence of discrete sub-events, with each sub-event consisting of a set of actions. Each action is a parameterized instance of one of a finite set of action types. The observer enters the actions into the observer computer 2 resulting in an encoded description 3 of the event as a series of sub-events, each sub-event consisting of parameterized actions.¹ The encoded description will be transmitted to a centralized data base computer 4. The data base computer has a data base file 5 associated with a given event and stores the sequence of sub-events as received from the observer computer.² A viewer 7 has a computer 6 and receives a transmission of the sequence of sub-events stored in an event file of the data base file 5 corresponding to the desired event.³ The viewer's computer 6 then operates on the encoded description transmitted by the centralized data base computer 4 so as to produce the desired report of the event.⁴

¹ See, e.g., FIG. 3 and page 9, line 13 to page 10, line 28.

² See, e.g., FIGS. 4-5 and page 10, line 29 through page 12, line 28.

³ See, e.g., FIGS. 6-10, and page 12, line 29 through page 15, line 21.

⁴ See, e.g., FIGS. 11-13, and page 19, line 29 through page 23, line 5.

According to this embodiment, the encoded description of the event includes an ordered sequence of sub-events. As constructed, each sub-event descriptor includes a set of one or more actions. Each action has associated therewith a tag indicating the begin and end times of the action, the type of action taking place, as well as values for parameters associated with the designated type of action. The types of actions and the parameters depend upon the nature of the real event.⁵

ISSUES

- A. Whether claims 1, 4-5, 8-9, 12-13 and 16 claim the same invention as that of claims 5, 2, 13, 2, 10, 2, 10, and 2, respectively, of prior U.S. Patent No. 6,204,862 B1 ("the '862 patent") under a statutory type (35 U.S.C. § 101) double patenting rejection.
- B. Whether claims 1-16 are obvious over U.S. Patent No. 4,894,774 ("McCarthy") in view of U.S. Patent No. 4,918,603 ("Hughes").

GROUPING OF CLAIMS

All of the claims stand or fall together.

ARGUMENT

The present independent claims recite methods of transmitting information useful in a computer simulation of a live event comprising representing at least one sub-event of a live event by at least one action type selected from a set of action types representative of actions involving physical exertion and skill, creating a database file corresponding to the event, updating the database file using the action type representing the at least one sub-event, wherein the updated database file provides an updated representation of the event, and transmitting information from the updated representation of the event.

⁵ See, e.g., FIG. 2 and page 8, line 22 to page 9, line 12.

Summary of Argument

The independent claims of the present invention are improperly rejected over the '862 patent for statutory type double patenting because the present claims could be literally infringed by a process that does not literally infringe the claims of the '862 patent. More specifically, a process representing only one sub-event may literally infringe any of the present claims, but it cannot infringe any claim of the '862 patent which requires the representation of more than one sub-event.

The present claims are not obvious over McCarthy in view of Hughes for at least the following reasons:

- McCarthy does not disclose an action type selected from a set of action types representative of *actions involving physical exertion and skill*, as claimed. Since McCarthy is directed to rendering *video game* objects on a *virtual* playfield, nothing in McCarthy is representative of any action involving *physical* exertion and skill because all actions represented in McCarthy are *virtual*, such as the disappearance of an attacking monster when it gets hit by a laser blast.
- Hughes does not disclose transmitting information useful in a computer simulation of *a live event*, as claimed. Since Hughes is directed to implementing a "Fantasy Football" league, it is improper for the Examiner to read "simulation of *a live event*" on a Fantasy Football calculation (i.e., weekly point value) based on statistical data (i.e., actual NFL player performances) compiled across several unrelated live events (i.e., actual NFL games).
- The Examiner has provided no motivation as to why one of ordinary skill would seek to combine the Fantasy Football calculation of Hughes with the graphical video game environment of McCarthy. The conclusory statements provided by the Examiner merely characterize the Fantasy Football calculation of Hughes without providing any motivation to combine a Fantasy Football calculation based on actual performances with the graphical video game environment of McCarthy.

- Hughes is not combinable with McCarthy because the proposed modification would render McCarthy unsatisfactory for its intended purpose. If the video game processor of McCarthy were to render the menu-driven screens utilized by Hughes to implement a Fantasy Football league, this use of McCarthy would clearly be unsatisfactory for its intended purpose of rendering the movement and collision of objects (e.g., video game characters) on a virtual playfield. Additionally, an individual Hughes Fantasy Football “game” could not be rendered by the McCarthy video processor because the statistical calculations representing the point value of a Fantasy Football team cannot be suitably modeled by a virtual game and playfield involving movement and collision of objects (e.g., football players).

The Statutory Type Double Patenting Rejection Is Improper

In the April 11, 2002 Office action (“first Office action”), the Examiner rejected claims 1, 4-5, 8-9, 12-13 and 16 under statutory type (35 U.S.C. § 101) double patenting as claiming the same invention as that of claims 5, 2, 13, 2, 10, 2, 10 and 2, respectively, of the '862 patent.⁶ In their September 10, 2002 response to Office action (“response”), Applicants traversed this rejection, pointing out that a statutory double patenting rejection is improper when there are variations in the scope of the claim language between the present claims and the patented claims. Applicants provided such a claim scope variation by setting forth a limitation (“generating a sequence of symbolic descriptions”) required by the patented claims but not required by the present claims. Additionally, in an effort to expedite prosecution, Applicants offered to submit a terminal disclaimer to overcome a more proper non-statutory obviousness-type double patenting rejection, should the Examiner desire to maintain some form of a double patenting rejection.⁷

⁶ First Office action, pages 3-4.

⁷ Response, pages 7-8.

In the November 18, 2002 Office action ("final Office action"), the Examiner upheld the statutory type double patenting rejection only by making the conclusory statement "[t]his is a double patenting rejection, because the above claims are equivalent in scope, therefore the rejections are maintained."⁸ The Examiner offered absolutely no basis or reasoning to justify his assertion that the present claims were equivalent in scope with the above-mentioned patent claim limitation set forth by Applicants.

Further, the Examiner's rejection is in direct conflict with precisely the controlling law that the Examiner cited in support of his rejection. In *In re Vogel*,⁹ the court states that:

A good test, and probably the only objective test, for "same invention," is whether one of the claims could be literally infringed without literally infringing the other. If it could be, the claims do not define identically the same invention.¹⁰

In accordance with Applicants' argument in their response, one could very well literally infringe the claims of the '862 patent without literally infringing the present claims.

For example, each independent claim of the '862 patent requires generating a *sequence* of symbolic descriptions, wherein *each* symbolic description represents *one sub-event* of a live event. In contrast, each independent claim of the present application requires representing *at least one sub-event* of a live event. A process representing only one sub-event may literally infringe any of the present claims, but it cannot infringe any claim of the '862 patent. Since any claim of the '862 patent requires a *sequence* of descriptions, wherein each description represents one sub-event, the '862 patent claims necessarily require the representation of *more than one* sub-event to be infringed.¹¹

⁸ Final Office action, page 3.

⁹ *In re Vogel*, 164 U.S.P.Q. (BNA) 619 (C.C.P.A. 1970).

¹⁰ *Id.* at 622.

¹¹ A further example of the Examiner's failure to abide by the *In re Vogel* test is his rejection of present claim 1 with respect to claim 5 of the '862 patent. The entire last three steps of claim 5 of the '862 patent (i.e., the receiving, storing and generating steps) are not reflected in any form in present claim 1.

The court in *In re Deters*¹² specifically holds that same-invention type double patenting is not present in this type of situation, stating:

Since it is possible to infringe claim 2 literally without infringing any of the Deters patent claims literally, same-invention type double patenting is not present. . . . Claim 2, requiring “at least one” longitudinally displaced surface on the guide means, reads on *one* such surface; the patent claims, by claiming a “plurality,” i.e., more than one, of such surfaces, do not.¹³

Thus, the statutory double patenting rejection is improper, even if the Examiner believes that “the difference between ‘at least one’ and a ‘plurality’ is a de minimis, obvious variation.”¹⁴

The Present Claims Are Not Obvious over McCarthy in View of Hughes

As stated above, the present independent claims recite methods of transmitting information useful in a computer simulation of a live event comprising representing at least one sub-event of a live event by at least one action type selected from a set of action types representative of actions involving physical exertion and skill, creating a database file corresponding to the event, updating the database file using the action type representing the at least one sub-event, wherein the updated database file provides an updated representation of the event, and transmitting information from the updated representation of the event.

These claim elements will hereinafter be referred to as “the above-identified claim elements.”

The obviousness rejection is improper because McCarthy does not disclose an action type selected from a set of action types representative of *actions involving physical exertion and skill*, Hughes does not disclose transmitting information useful in a computer *simulation of a live event*, the Examiner failed to provide any motivation to combine Hughes with McCarthy, and one in the art would not be motivated to combine Hughes with McCarthy.

¹² *In re Deters*, 185 U.S.P.Q. (BNA) 644 (C.C.P.A. 1975).

¹³ *Id.* at 648.

¹⁴ *Id.*

McCarthy Does Not Represent Actions Involving Physical Exertion and Skill

The Examiner rejected all of the above-identified claim elements over McCarthy except for “simulation of a live event,” which was rejected over Hughes.¹⁵ This rejection is improper, however, for at least the reason that McCarthy does not disclose an action type selected from a set of action types representative of *actions involving physical exertion and skill*, as claimed.

In the final Office action, the Examiner improperly equates the claimed action involving physical skill and exertion with the “moving, colliding of objects” of McCarthy.¹⁶ McCarthy is directed to the *video game* processing of a plurality of objects on a *virtual* playfield to determine which objects are visible on the portion of the playfield being displayed and which objects have collided with other objects.¹⁷ Nothing in McCarthy is representative of any action involving *physical* exertion and skill because all actions represented in McCarthy are *virtual*, such as the disappearance of an attacking monster when it gets hit by a laser blast.¹⁸

Hughes Does Not Simulate a Live Event

As mentioned above, the Examiner applied Hughes to the above-identified claim elements only to the extent that they pertain to “simulation of a live event.” This rejection is improper, however, for at least the reason that Hughes does not disclose transmitting information useful in a computer simulation *of a live event*, as claimed.

Hughes is a simple menu-driven program that implements a “Fantasy Football” league; it allows users to set up a Fantasy Football draft to form Fantasy Football teams, with each Fantasy Football team represented by existing NFL players selected from a variety of actual NFL teams in the Fantasy Football draft. A weekly point value for each Fantasy Football team is calculated by totaling points achieved by each Fantasy Football team’s individual players.¹⁹ The points are based upon statistics from the actual performances of the representative NFL players in their

¹⁵ The Examiner admits that McCarthy fails to disclose simulation of a live event. Final Office action, page 4.

¹⁶ *Id.* at 4.

¹⁷ McCarthy, col. 1, lines 8-12.

¹⁸ *Id.* at col. 4, lines 32-35.

¹⁹ Hughes, col. 3, lines 66 - col. 4, line 4.

respective NFL games. The statistics are loaded into the program on a weekly basis in the form of floppy diskettes.²⁰

The Examiner attempts to cloud the weakness of Hughes as a reference for disclosing the simulation of a live event by stating "Hughes teaches the simulation of sports, such as a football game, on a computer"²¹ and "Hughes teaches above the simulation of an easy to use football game based on actual performances."²² Since the Examiner cannot accurately state that Hughes simulates a live football game event (which is the what the Examiner attempts to use Hughes for in the first place), the Examiner vaguely asserts that Hughes simulates a football game based on "actual performances."

Hughes clearly does not simulate a live event; rather Hughes merely manipulates statistical data from several live sporting events to produce a Fantasy Football calculation that has no resemblance to any of the individual live events from which the statistical data is derived. It is improper for the Examiner to read "simulation of a live event" on a Fantasy Football calculation (i.e., weekly point value) based on statistical data (i.e., actual NFL player performances) compiled across several unrelated live events (i.e., actual NFL games). Thus, even if McCarthy were somehow modified with teaching from Hughes, the resulting combination would still not simulate a live event.

The Examiner Provides No Motivation To Combine Hughes with McCarthy

As applied to the above-identified claim elements, the Examiner cites McCarthy for simulating an event through its disclosure of rendering the movement and collision of objects (e.g., video game characters) on a virtual playfield, while Hughes is cited for simulating a live event through its disclosure of implementing a Fantasy Football calculation based on actual performances. The Examiner has provided no motivation as to why one of ordinary skill would seek to combine the Fantasy Football calculation of Hughes with the graphical video game

²⁰ *Id.* at col. 3, lines 3-5.

²¹ Final Office action, page 4.

²² *Id.* at page 4.

environment of McCarthy.

In *In re Lee*,²³ the Federal Circuit recently vacated the Board for rejecting the need for “any specific hint or suggestion in a particular reference” to support the combination of the two 103 references.²⁴ The court held that “the Board must not only assure that the requisite findings are made, based on evidence of record, but must also explain the reasoning by which the findings are deemed to support the agency’s conclusion.”²⁵ In the present case, the Examiner has failed to provide any motivation or reasoning to combine Hughes with McCarthy.

For example, in the first Office action the Examiner simply stated:

However, it would have been obvious to a person of ordinary skill in the art at the time of the invention to have combined the teachings of McCarthy, and Hughes, because Hughes teaches above the simulation of an easy to use football game based on actual performances.²⁶

This is precisely the type of conclusory statement prohibited by the Federal Circuit in *In re Lee*²⁷ because it does not adequately address the issue of motivation to combine. The statement merely characterizes the Fantasy Football calculation of Hughes without providing any motivation to combine a Fantasy Football calculation based on actual performances with the graphical video game environment of McCarthy.

When challenged on this point by Applicants in their response, the Examiner in the final Office action traversed Applicants’ challenge by stating:

Hughes teaches the [sic] having sports team/players compete and participate based on simulation game statistical data via a computer program (c.1,L.1-67,c.16,L.3-9).²⁸

²³ *In re Lee*, 61 U.S.P.Q.2d (BNA) 1430 (Fed. Cir. 2002).

²⁴ *Id.* at 1434.

²⁵ *Id.*

²⁶ First Office action, pages 4-5.

²⁷ *In re Lee*, 61 U.S.P.Q.2d (BNA) at 1434-1435.

²⁸ Final Office action, page 6.

Again, this statement merely characterizes the Fantasy Football calculation of Hughes without providing any motivation to combine a Fantasy Football calculation with the graphical video game environment of McCarthy. Similarly, the citations to Hughes appended to this statement also fail to provide a motivation to combine.

For example, the citations point to almost the entire background section of the specification ("c.1,L.1-67") coupled with the following type of boilerplate language that concludes most patent applications ("c.16,L.3-9"):

Although only a preferred embodiment is specifically illustrated and described herein, it will be appreciated that many modifications and variations of the present invention to other types of sports are possible in light of the above teachings and within purview of the appended claims without departing from the spirit and intended scope of the invention.

This paragraph basically states Hughes can be applied to sports other than football. Neither this paragraph nor the background section of the specification provide any motivation to combine Hughes with the graphical video game environment of McCarthy.

For at least these reasons, one of skill in the art of graphical video game rendering such as disclosed by McCarthy would not look to the unrelated area of Fantasy Football such as disclosed by Hughes. The only motivation for the asserted combination is the impermissible use of hindsight by the Examiner to reconstruct the claimed invention.

Hughes Cannot Be Combined with McCarthy

Notwithstanding the fact that no motivation to combine was provided by the Examiner, Hughes is not combinable with McCarthy because the proposed modification would render McCarthy unsatisfactory for its intended purpose.

As explained above, McCarthy is directed to the rendering of movement and collision of objects (e.g., video game characters) on a virtual playfield, while Hughes is directed to implementing a Fantasy Football league. McCarthy could not be modified in view of Hughes for the simple reason that there is no movement or collision of objects that could be rendered based on an implementation of a Fantasy Football league. The only computer-related aspects of the Fantasy Football implementation of Hughes are menu-driven screens that enable users to set up

individual franchises, organize a draft, chart weekly starting line-ups, execute player trades, calculate a player's and team's point values to determine weekly and seasonal champions, and print out the point value results.²⁹ The execution of a Fantasy Football "game" is just an abstraction based on calculating Fantasy Football team point values from statistical data derived from various unrelated NFL players' actual performances.

For instance, if the video game processor of McCarthy were to render the menu-driven screens utilized by Hughes to implement a Fantasy Football league, this use of McCarthy would clearly be unsatisfactory for its intended purpose, which is to render the movement and collision of objects (e.g., video game characters) on a virtual playfield.

Additionally, an individual Hughes Fantasy Football "game" could not be rendered by the McCarthy video processor because the statistical calculations representing the point value of a Fantasy Football team cannot be suitably modeled by a virtual game and playfield involving movement and collision of objects (e.g., football players). To illustrate by example, suppose a Fantasy Football team has a quarterback from one actual team and receivers from different actual teams. Statistically speaking, it's most likely that the Fantasy Football team's weekly touchdown pass and touchdown reception totals will not match, since in the corresponding actual events, the Fantasy Football team's quarterback is not actually throwing to the Fantasy Football team's receivers, and the Fantasy Football team's receivers are not actually catching passes from the Fantasy Football team's quarterback. Thus, a weekly point value of the Fantasy Football team could be based on points derived from 3 touchdown passes and 1 touchdown reception. One of skill in the art would be unable to render this scenario through the movement and collision of objects using McCarthy.

²⁹ Hughes, col. 3, lines 66 - col. 4, line 4.

CONCLUSION

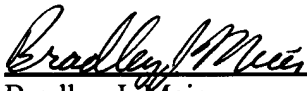
Applicants respectfully request withdrawal of the rejections of the pending claims, which are attached in the appendix. Issuance of a Notice of Allowance is earnestly solicited.

The Office is authorized to charge the two-month small entity extension of time fee of \$205.00 to Deposit Account No. 11-0600. Although not believed necessary, the Office is hereby authorized to charge any additional fees required under 37 C.F.R. § 1.16 or § 1.17 or credit any overpayments to Deposit Account No. 11-0600.

The Examiner is invited to contact the undersigned at 202-220-4200 to discuss any matter regarding this application.

Respectfully submitted,
KENYON & KENYON

Dated: June 16, 2003

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APPENDIX

1. A method of transmitting information useful in a computer simulation of a live event, the live event being governed by a set of rules and comprising a sequence of discrete sub-events wherein said set of rules determines a status change in the live event from an occurrence of one of the discrete sub-events, the computer simulation operating in accordance with the set of rules, the method comprising:

representing at least one of the sub-events by at least one action type selected from a set of action types representative of actions involving physical exertion and skill;

creating a database file corresponding to the event;

updating the database file using the action type representing the at least one sub-event, wherein the updated database file provides an updated representation of the event; and

transmitting information from the updated representation of the event.

2. The method of claim 1 wherein:

the representing step comprises representing said at least one sub-event by a start time and an end time, in addition to the at least one action type for said at least one sub-event; and

the updating step comprises updating the database file using the start and end time of said at least one sub-event, in addition to the at least one action type for said at least one sub-event.

3. The method of claim 1 wherein:

the representing step comprises representing said at least one sub-event by a start time and a stop time associated with said at least one action type associated with said at least one sub-event; and

the updating step comprises updating the database file using said start and stop time of said at least one action type of said at least one sub-event.

4. The method of claim 1 wherein:

the representing step comprises representing said at least one of the sub-events by a value for at least one parameter associated with said at least one action type for said at least one sub-event; and

the updating step comprises updating the database file using the parameter value associated with said at least one action type of said at least one sub-event.

5. A method of transmitting information useful in a computer simulation of a live event, the live event being governed by a set of rules and comprising a sequence of discrete sub-events wherein said set of rules determines a status change in the live event from an occurrence of one of the discrete sub-events, the computer simulation operating in accordance with the set of rules, the method comprising:

representing at least one of the sub-events by at least one action type selected from a set of action types representative of actions involving physical exertion and skill;

creating a database file corresponding to the event;

updating the database file using the action type representing the at least one sub-event, wherein the updated database file provides an updated representation of the event;

receiving a request for information about the live event from a viewer computer; and

transmitting information to the viewer computer from the updated representation of the event in response to the received request.

6. The method of claim 5 wherein:

the representing step comprises representing said at least one sub-event by a start time and an end time, in addition to the at least one action type for said at least one sub-event; and

the updating step comprises updating the database file using the start and end time of said at least one sub-event, in addition to the at least one action type for said at least one sub-event.

7. The method of claim 5 wherein:

the representing step comprises representing said at least one sub-event by a start time and a stop time associated with said at least one of the action types associated with said at least one sub-event; and

the updating step comprises updating the database file using said start and stop time of said at least one action type of said at least one sub-event.

8. The method of claim 5 wherein:

the representing step comprises representing said at least one sub-event by a value for at least one parameter associated with said at least one action type for said at least one sub-event; and

the updating step comprises updating the database file using the parameter value associated with said at least one action type of said at least one sub-event.

9. A method of transmitting information about a plurality of live events, the information about each event being useful in a computer simulation of that event, each of the plurality of live events being governed by an associated set of rules and comprising a sequence of discrete sub-events, wherein each set of rules determines a status change in the associated live event from an occurrence of one of the discrete sub-events of that associated live event, the computer simulation of a given live event operating in accordance with the associated set of rules, the method comprising:

for each of the plurality of live events,

representing at least one of the sub-events of the live event by at least one action type selected from a set of action types representative of actions involving physical exertion and skill;

creating a database file corresponding to that live event; and

updating the database file corresponding to that live event using at least the action type representing the at least one sub-event, wherein the updated database file provides an updated representation of that event;

and transmitting information from the updated representation of at least one of the plurality of live events.

10. The method of claim 9 wherein:

the representing step for at least one of the plurality of live events comprises representing said at least one sub-event by a start time and an end time, in addition to the at least one action type for said at least one sub-event; and

the updating step for said at least one of the plurality of live events comprises updating the database file using said start and end time of said at least one sub-event, in addition to the at least one action type for said at least one sub-event.

11. The method of claim 9 wherein:

the representing step for at least one of the plurality of live events comprises representing said at least one sub-event by a start time and a stop time associated with said at least one action type associated with said at least one sub-event; and

the updating step for said at least one of the plurality of live events comprises updating the database file using said start and stop time of said at least one action type of said at least one sub-event.

12. The method of claim 9 wherein:

the representing step for at least one of the plurality of live events comprises representing said at least one sub-event by a value for at least one parameter associated with said at least one action type for said at least one sub-event; and

the updating step for said at least one of the plurality of live events comprises updating the database file using the parameter value associated with said at least one action type of said at least one sub-event.

13. A method of transmitting information about a plurality of live events, the information about each event being useful in a computer simulation of that event, each of the plurality of live events being governed by an associated set of rules and comprising a sequence of discrete sub-events, wherein each set of rules determines a status change in the associated live event from an occurrence of one of the discrete sub-events of that associated live event, the computer simulation of a given live event operating in accordance with the associated set of rules, the method comprising:

for each of the plurality of live events,

representing at least one of the sub-events of the live event by at least one action type selected from a set of action types representative of actions involving physical exertion and skill;

creating a database file corresponding to that live event;

updating the database file corresponding to that live event using the action type representing the at least one sub-event, wherein the updated database file provides an updated representation of that event;

receiving a request for information about at least one of the plurality of live events from a viewer computer; and

transmitting information to the viewer computer from the updated representations of the requested events in response to the received request.

14. The method of claim 13 wherein:

the representing step for at least one of the plurality of live events comprises representing the at least one sub-event by a start time and an end time, in addition to the at least one action type for said at least one sub-event; and

the updating step for the at least one of the plurality of live events comprises updating the database file using the start and end time of the at least one sub-event, in addition to the at least one action type for said at least one sub-event.

15. The method of claim 13 wherein:

the representing step for at least one of the plurality of live events comprises representing the at least one sub-event by a start time and a stop time associated with said at least one action type associated with said at least one sub-event; and

the updating step for said at least one plurality of live events comprises updating the database file using the start and stop time of said at least one action type of said at least one sub-event.

16. The method of claim 13 wherein:

the representing step for at least one of the plurality of live events comprises representing the at least one sub-event by a value for at least one parameter associated with said at least one action type, for said at least one sub-event; and

the updating step for at least one of the plurality of live events comprises updating the database file using the parameter value associated with said at least one action type of said at least one sub-event.